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Henry James Clark.

Biography + Bibliography

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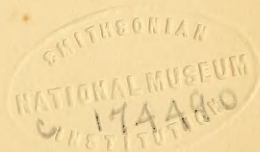


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HENRY JAMES CLARK.

1826-1873.

[A reprint from the General Catalogue of the Massachusetts Agricultural College, 1886.]







HENRY JAMES CLARK, B.A., B.Sc., the first professor of Natural History at the Massachusetts Agricultural College, was the son of Rev. Henry Porter and Abigail Jackson (Orton) Clark, and was born 22d June, 1826, at Easton, Mass. His father removed to Brooklyn, N. Y., where he lived many years and where the son received much of his early training. He received his collegiate education at the University of the City of New York, graduating B.A., in 1848. Immediately after leaving college he taught for some time at White Plains, N. Y. He commenced the study of botany under Dr. Asa Gray, at Cambridge, in 1850. While a student at the Botanic Garden, he taught in the academy at Westfield, Mass., for a single term, apparently achieving much success as a teacher, and forming life-long friendships. Soon after this he became a student of Professor Agassiz, and for several years was his private assistant. Professor Agassiz, early in 1857, spoke of him enthusiastically, remarking to a friend, "Clark has become the most accurate observer in the country." He graduated from the Lawrence Scientific School, Cambridge, in 1854, taking the degree of B.Sc. Between 1856 and 1863 he was associated with Agassiz in the preparation of the anatomical and embryological portions of the "Contributions to the Natural History of the United States." In June, 1860 he was appointed adjunct Professor of Zoölogy in Harvard University, which he held until the expiration of his term of office in 1865. He gave a course of lectures on histology at the Museum of Comparative Zoölogy, Cambridge, in 1861, and delivered a course of twelve lectures on "Mind in Nature; or the Origin of Life, and the Mode of Development of Animals," at the Lowell Institute, Boston, in 1864. He was appointed Professor of Botany, Zoölogy, and Geology, in the Agricultural College of Pennsylvania, in December, 1866. Here he remained until April, 1869, when he was appointed to the chair of Natural History of the University of Kentucky. He lived at Lexington, Kentucky, until February, 1872, when he was elected Professor of Comparative Anatomy and Veterinary Science in the Massachusetts Agricultural College. Busy with his work at Amherst, and struggling with the fatal disease, *tabes mesenterica*, he wasted away, and died on the 1st July, 1873, in the forty-

eighth year of his age. He was a member of most of the learned societies in this country, while his works have been recognized and referred to by the leading zoölogists of Europe.

In 1856 he was elected a fellow of the American Academy of Arts and Sciences, and in 1870, an associate fellow of the same. In 1857 he became a member of the Boston Society of Natural History. In 1865 he was chosen a corresponding member of the American Microscopical Society; in 1866, corresponding member of the Essex Institute, and in 1868, correspondent of the Philadelphia Academy of Natural Sciences. In 1872 he was elected a member of the National Academy of Sciences, which, at that time, was limited in membership to fifty of the foremost scientists of the country.

He married, 29th September, 1854, at Boston, Mary Young Holbrook. Seven of their eight children are living, one daughter having died in infancy.

Mr. Clark's first love for science seems to have grown from his fondness for flowers. After he became a student of zoölogy his love for botany remained undiminished. "The influence of his knowledge of botany on his zoölogical studies was marked. It prepared him for his studies on spontaneous generation, on the theory of the cell, on the structure of the Protozoa and the nature of protoplasm. In the use of the microscope he showed not only mechanical skill and ingenuity, but a patience, caution, and experience in difficult points in histology, which undoubtedly placed him at the head of observers in this country, and rendered him, perhaps, inferior to few in Europe. He used the highest powers with a skill that few if any living observers have surpassed. His work entitled 'Mind in Nature' is, in all respects, for its usually sound and clear thinking, its breadth of view, and the amount of original work it contains, perhaps the most remarkable general zoölogical work as yet produced in this country. If the author had left us no other work, this alone would testify to years of the severest labor and independent thought. It anticipated certain points in histology, and the structure of the Protozoa and Sponges especially, which have made the succeeding labors of some European observers notable." Dr. A. S. Packard, Jr., in a Memoir read before the National Academy of Sciences, in 1874, speaks of Mr. Clark as follows: "Within the year past we have lost a member who may be said, without disparagement to others labor-



ing in the same field, to have been the foremost American histologist and microscopist, and one of our most skilful and accomplished biologists; one the rule of whose scientific life was a practical application of experimental philosophy. A true naturalist, he was an enthusiast, and yet in his methods of study severe, exact, and in all respects scholarly."

A list of the scientific writings of Henry James Clark is here subjoined.

The Peculiar Growth of Rings in the Trunk of *Rhus toxicodendron*. (*Proc. Amer. Acad.*, Vol. III., 1856, p. 335.)

The Eccentricity of the Pith in *Ampelopsis quinquefolia* and *Celastrus scandens*. (unpublished.)

Contributions to the Natural History of the United States. 1857-62. (*Conjointly with Prof. Louis Agassiz.*)

Recapitulation of the "Embryology of the Turtle," as given in Professor Agassiz's "Contributions to the Natural History of the United States." (*Am. Jour. of Science*, II. Vol. XXV., 1858, pp. 342-357.)

Some remarks upon the use of the microscope, as recently improved, in the investigation of the minute organization of living bodies. (*Proc. Amer. Acad.*, Vol. IV., 1859, pp. 136-149; *Am. Jour. of Science*, II. Vol. XXVIII., 1859, pp. 37-48.)

On the Identity of the Vibrios and the muscular fibrillæ. (*Proc. Amer. Acad.*, Vol. IV., 1859, pp. 199-201; *expanded and published under the title*, On the Origin of Vibrio, *Am. Jour. of Science*, II. Vol. XXVIII., 1859, pp. 107-109.)

On Apparent Equivocal Generation. (*Proc. Amer. Acad.*, Vol. IV., 1859, pp. 207, 208; *Am. Jour. of Science*, II. Vol. XXVIII., 1859, pp. 154, 155.)

Lucernaria the Coenotype of Acalephæ. (*Proc. Boston Soc. Nat. Hist.*, Vol. IX., 1862, pp. 47-54; *Am. Jour. of Science*, II. Vol. XXXV., 1863, pp. 346-355; *Ann. Mag. Nat. Hist.*, London, III. Vol. XII., 1863, pp. 19-30.)

Prodromus of the History, Structure, and Physiology of the order Lucernariæ. (*Jour. Boston Soc. Nat. Hist.*, Vol. VII., 1863, pp. 531-567.)

Actinophrys. (*Proc. Boston Soc. Nat. Hist.*, Vol. IX., 1863, pp. 282-284; *republished under the title*, On the cellular structure of Actinophrys Eichornii, *Am. Jour. of Science*, II. Vol. XXXVIII., 1864, pp. 331, 332; *Ann. Mag. Nat. Hist.*, III. Vol. XIV., 1864, pp. 394, 395.)

Note on eggs of Tubularia. (*Proc. Boston Soc. Nat. Hist.*, Vol. IX., 1863, p. 342; *expanded and published under the title*, Tubularia Not Parthenogenous, *Am. Jour. of Science*, II. Vol. XXXVII., 1864, pp. 61-66.)

Discovery of female Rhizogeton fusiformis, Ag. (*Proc. Boston Soc. Nat. Hist.*, Vol. IX., 1863, p. 342.)

A Claim for Scientific Property. Cambridge, 1863, pp. 3.

Note on Tolles microscopic objectives. (*Ann. Mag. Nat. Hist.*, III. Vol. XIV., 1864, p. 395.)

Proofs of the Animal Nature of the Cilio-flagellate Infusoria, as based upon Investigations of the Structure and Physiology of one of the Peridinia (*Peridinium cypripedium*, *n. sp.*). (*Proc. Amer. Acad.*, Vol. VI., 1865, pp. 393-402; *Ann. Mag. Nat. Hist.*, III. Vol. XVI., 1865, pp. 270-279.)

The Anatomy and Physiology of the Vorticellidan Parasite (*Trichodina pediculus*, Ehr.) of Hydra. (*Proc. Boston Soc. Nat. Hist.*, Vol. X., 1865, p. 223; *Memoirs Boston Soc. Nat. Hist.*, Vol. I., 1865, pp. 114-130; *Ann. Mag. Nat. Hist.*, III. Vol. XVII., 1866, pp. 401-425.)

On the Vestibular "bristle" or lash of one of the Vorticellidae. (*Proc. Boston Soc. Nat. Hist.*, Vol. X., 1865, pp. 231, 232.)

Mind in Nature; or the Origin of Life, and the Mode of Development of Animals. New York, 1865, pp. 331.

On the affinities of *Peridinium cypripedium*, *Jas-Clk.*, and *Urocentrum turbo*, Ehr. (*Ann. Mag. Nat. Hist.*, III. Vol. XVIII., 1866, pp. 2-6.)

On the Structure and Habits of *Anthophysa Müllereri*, Bory, one of the sedentary monadiform Protozoa. (*Am. Jour. of Science*, II. Vol. XLII., 1866, pp. 223-230; *Ann. Mag. Nat. Hist.*, III. Vol. XVIII., 1866, pp. 429-436.)

Conclusive proofs of the animality of the ciliate Sponges, and of their affinities with the Infusoria Flagellata. (*Am. Jour. of Science*, II. Vol. XLII., 1866, pp. 320-324; *Ann. Mag. Nat. Hist.*, III. Vol. XIX., 1867, pp. 13-18.)

On the Spongiae Ciliatae as Infusoria Flagellata; or, Observations on the Structure, Animality, and Relationship of *Leucosolenia botryoides*, Bowerbank. (*Proc. Boston Soc. Nat. Hist.*, Vol. XI., 1866, pp. 16, 17; *Memoirs Boston Soc. Nat. Hist.*, Vol. I., 1866, pp. 305-340; *Ann. Mag. Nat. Hist.*, IV. Vol. I., 1868, pp. 133-142, 188-215, 250-264.)



Polarity and Polycephalism, an essay on Individuality. (*Am. Jour. of Science*, II. Vol. XLIX., 1870, pp. 69-75.)

Note on the Infusoria Flagellata and the Spongiae Ciliatae. (*Am. Jour. of Science*, III. Vol. I., 1871, pp. 113, 114; *Ann. Mag. Nat. Hist.*, IV. Vol. VII., 1871, pp. 247, 248.)

The American Spongilla, a Craspedote, Flagellate Infusorian. (*Am. Jour. of Science*, III. Vol. II., 1871, pp. 426-436; *Ann. Mag. Nat. Hist.*, IV. Vol. IX., 1872, pp. 71-81; *Monthly Microsc. Jour.*, London, Vol. VII., 1872, pp. 104-114.)

Report on the Veterinary Department, Mass. Agricultural College.) *Tenth Annual Report*, Jan., 1873, pp. 26-29.)

Lucernariae and their Allies. A memoir on the anatomy and physiology of *Haliclystus auricula*, and other Lucernarians, with a discussion of their relations to other Acalephae; to Beroids, and Polypi. (*Smithsonian Contributions to Knowledge*, 242, 1878, pp. 130.)













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